ABSTRACT

A ferroelectric capacitor of the type having a top electrode, a ferroelectric thin film, and a bottom electrode, is characterized in that said ferroelectric thin film is a perovskite-type oxide containing Pb and said upper and bottom electrodes contain an intermetallic compound composed of Pt and Pb. An electronic device is provided with said ferroelectric capacitor. This construction is designed to solve the following problems. In a non-volatile ferroelectric memory (FeRAM), a degraded layer occurs near the interface between the PZT and the electrode due to hydrogen evolved during processing or due to diffusion of Pb from the PZT into the electrode. A stress due to a difference in lattice constant occurs in the interface between the electrode and the ferroelectric thin film. The degraded layer and the interfacial stress deteriorate the initial polarizing characteristics of the ferroelectric capacitor and also greatly deteriorate the polarizing characteristics after switching cycles.